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Douglas B. Quine

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EXAMINER

HUBER, JEREMIAH C

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/650,511
Filing Date: August 28, 2003
Appellant(s): QUINE, DOUGLAS B.

QUINE, DOUGLAS
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 2nd, 2008 appealing from the Office action mailed November 2nd, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,674,924	FISCHER ET AL.	7-1972
3,674,926	DEWEY ET AL.	7-1972

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 10-11 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (3674924) in view of Dewey et al (3674926).

In regard to claim 5 Fischer discloses a system and method for acquiring an image of a moving item in a path in a mailing machine using an imaging device and an illumination source positioned relative to the path, wherein the image includes a discernible feature of the moving item, the imaging device having a field-of-view covering at least a portion of the path, the illumination sources capable of providing a

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flash of light for illuminating at least a part of the field-of-view of the imaging device, wherein the imaging device is capable of acquiring the image in at least one image frame at a time and providing at least one electronic signal indicative of a sync pulse in synchronization with said image acquiring (Fischer Figs 1-2 and col. 2 line 34 to col. 4 line 55) including:

providing a triggering signal based on the electronic signal (Fischer Figs 1-2 and col. 4 lines 42-45 note flash is delayed by one field scan time).

in response to the triggering signal, causing the illuminating source to provide the flash of light for illuminating the moving item at least partially entering the field-of-view (Fischer Figs. 1-2 and col. 2 lines 57-60);

acquiring the image of the moving item while it is illuminated by the flash of light, wherein the flash of light has a flash duration sufficiently short as compared to the motion of the moving item so as to produce a discernable feature (Fischer col. 2 line 60 to col. 3 line 14 note col. 2 line 63 for discernable feature and col. 3 lines 8-14 for flash duration);

wherein the imaging device includes a video camera (Fischer Fig. 1 20 note T.V. camera); and

providing a sensing signal when the moving item having reached a predetermined point in the field-of-view of the image device, wherein the triggering signal is provided also based on the sensing signal (Fischer Figs 1-2 12 and col. 2 lines 48-54 note trailing edge detector initiates sequence to energize flash lamps).

Fischer further discloses sync pulses provided at a field rate (Fischer Fig. 2 note FIELD_SYNC) which is two sync pulses per frame (Fischer Fig. 2) and further discloses selecting one pulse to use as the sync pulse (Fischer Figs 1-2 and col. 4 lines 42-45 note flash is delayed until the next field scan which could be either field pulse). It is noted that Fischer does not disclose that the sync pulse is generated by the camera but is rather generated externally by a recorder clock. However at the time of the invention it was common and notoriously well known in the art at the time of the invention to include a sync pulse generator within a video camera as is evidenced by Dewey (Dewey Fig. 1 16 and col. 2 lines 49 to 71). It is therefore considered obvious that one of ordinary skill in the art would recognize the advantage of including a sync pulse generator in the video camera disclosed by Fischer in order to reduce necessary circuitry, and ensure synchronization with video output.

Further, even if it were not well known in the art to have a video camera provide sync pulses, the invention of would merely differ from Fischer by a physical arrangement of parts. That being that the sync pulse generator is located external to the camera instead of integrated into it. Such distinctions are held to be obvious engineering choices, and the invention of claim 3 would therefore be unpatentable over Fischer. See *In re Larson*, 144 USPQ347 (CCPA1965), *In re Lockhart*, 90 USPQ 214 (CCPA1951), and *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

In regard to claim 11 refer to the statements made in the rejection of claim 5 above.

In regard to claim 10 refer to the statements made in the rejection of claim 11 above. Fischer further discloses that the detection mechanism includes a photosensor (Fischer Fig. 1 16 and col. 2 lines 48-54).

In regard to claim 16 refer to the statements made in the rejection of claim 5 above.

(10) Response to Argument

To begin the examiner includes a brief overview of the operations of the Fischer reference and basic background on video technology. In the art of interlaced video imaging a picture is represented as distinct colored points called pixels that are arranged into columns and rows. The beginning of each column or row is indicated with a periodic line scan signal. Groups of columns or rows are organized into fields, with fields separated by a periodic field scan or sync signal. At the beginning of a new field both a field scan and line scan signal occur simultaneously. Fischer uses a system where pixels lines are vertically arranged (See Fischer col. 3 lines 20-31). In Fischer these signals are used to sweep a scanning beam across all of the camera's pixels and thereby produce an image. The line scan signal moves the beam from bottom to top while the field scan signal moves the beam from right to left (See Fischer col. 3 lines 20-31). Inhibiting either or both of the line and field scan signals prevents the picture from being generated.

In Fischer a flash is used to brightly, but briefly illuminate a moving object in order to obtain an image of the object (Fischer col. 3 lines 8-13). The charge generated

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by light reflected from the object accumulates in the camera, and is then collected by a scanning beam to generate an image (See Fischer col. 2 lines 70 to col. 3 line 3). In Fischer the camera is not synchronized with the transport system, therefore an object could come into view at any point during a camera scan (Fischer col. 4 lines 37-41). Fischer uses a combination of beam inhibiting and flash delay in order to ensure that the accumulated charge is only collected at the beginning of a complete field, rather than half-way through an image scan (Fischer col. 4 lines 46-50). The beam inhibit prevents image collection by preventing scanning of the image (Fischer col. 4 lines 33-41). The flash is delayed by one field period to ensure that beam scanning has been inhibited before illuminating the object which will accumulate charge in the camera (Fischer lines 42-46). Scanning resumes at the first full field after the flash so that the complete image may be obtained in the following fields (Fischer col. 4 lines 46-50)

In response to the appellants arguments made in regard to claims 5, 11 and 16 the appellant asserts that neither Fischer nor Dewey disclose a using a synchronization signal from a video camera as a trigger for generating a strobe light flash. The examiner must disagree.

Initially, the claims do not state that a synchronization signal is used as a strobe trigger as the appellant argues. The claims only require that a trigger signal is based on an electronic signal. The claim does not require its use of the electronic signal nor does it indicate that the electronic signal is a vertical synchronization signal. For clarification, the preamble to the further states that the electronic signal is indicative of a sync pulse

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in synchronization with image acquisition. And the body of the claim further states that the sync pulse is selected as one of two vertical synchronization signals. However, nowhere does claim state that the electronic signal is identical to a sync pulse but only that it is indicative of one.

Fischer discloses a document scanning system in which a trailing edge detector supplies an electronic signal to a field delay device (Fischer col. 4 lines 42-44). Then a triggering signal is supplied to an illumination source, from the delay device after being delayed by one field scan time (Fischer col. 4 lines 42-44). The examiner believes that the field delayed electronic signal is a signal that is indicative of a sync pulse in synchronization with the camera because the delay represents the period between the simultaneous horizontal and vertical field scan signals in the camera. Further, as described above the field delay and beam inhibit functions of Fischer are used to coordinate the capturing of video with trailing edge detection to ensure that images are captured on complete fields.

The appellant further asserts that Dewey does not disclose a strobe light or use of a synchronization signal from a camera to trigger a strobe flash. The examiner notes the appellant's arguments, however Dewey was not relied upon to teach the feature of a triggering signal based on an electronic signal indicative of a sync pulse as these features are taught by Fischer. Instead Dewey was cited to show that it was common and notoriously well known in the art for synchronization signals to be generated by a camera.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jeremiah C Huber/

Examiner, Art Unit 2621

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